

ITW

MORGAN L. FITCH JR.
FRANCIS A. EVEN*
JULIUS TABIN
JOHN F. FLANNERY
ROBERT B. JONES
JAMES J. SCHUMANN
JAMES J. HAMILL
TIMOTHY E. LEVSTIK
JOSEPH E. SHIPLEY
KENNETH H. SAMPLES
PHILIP T. PETTI
JOSEPH T. NABOR
STEVEN C. SCHROER
RICHARD A. KABA*
KARL R. FINK
MARK W. HETZLER
TIMOTHY P. MALONEY
JAMES P. KRUEGER
STEPHEN S. FAVAKEH
RICHARD E. WAWRZYNIAK
STEVEN G. PARMELEE
THOMAS F. LEBENS
BRUCE R. MANSFIELD
KENDREW H. COLTON*
G. PAUL EDGELL*
MICHAEL A. SANZO*
SCOTT A. MENGHINI
NORMAN N. KUNITZ*
RUDY KRATZ
RAMON R. HOCH*

FITCH, EVEN, TABIN & FLANNERY

ATTORNEYS AND COUNSELLORS AT LAW

Established in 1859

SUITE 401L - 1801 K STREET, NW
WASHINGTON, D.C. 20006-1201

TELEPHONE (202) 419-7000

FACSIMILE (202) 419-7007

ILLINOIS OFFICE

SUITE 1600 - 120 SOUTH LASALLE STREET, CHICAGO, ILLINOIS 60603-3406

TELEPHONE (312) 577-7000

CALIFORNIA OFFICE

SUITE 250 - 9276 SCRANTON ROAD, SAN DIEGO, CA 92121-7708

TELEPHONE (858) 552-1311

COLORADO OFFICE

SUITE 213 - 1942 BROADWAY, BOULDER, COLORADO 80302

TELEPHONE (303) 402-6966

November 18, 2004

EDWARD E. CLAIR
JON A. BIRMINGHAM
JOHN E. LYHUS
STEVEN M. FREELAND
DONNA E. BECKER
MICHAEL G. VRANICAR
BRIAN S. CLISE
MARTIN R. BADER
DEREK L. PRESTIN
MARK A. BORSOS
DAVID R. JAGLOWSKI
TIMOTHY R. BAUMANN
JEFFREY A. CHELSTROM
NICHOLAS T. PETERS
KENNETH A. PLOCHINSKI
MEGAN J. REDMOND

PATENT AGENTS

ERIC J. WHITESSELL
LILIA I. SAFONOV

OF COUNSEL

GEORGE W. SPELLMIRE, JR.
LISA M. SOMMER
GEORGE H. SPENCER, P.C.*

TECHNICAL ADVISOR

JOHN M. BRONK, PH.D.

*ADMITTED TO D.C. BAR; D.C. PRACTICE OF
ALL OTHERS LIMITED TO FEDERAL COURTS
AND AGENCIES

Commissioner of Patents
U.S. Patent and Trademark Office
220 20th Street South
Customer Window, MS Amendment
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202

Re: Information Disclosure Statement
Appl. No.: 10/784,914
Filed: February 24, 2004
Title: **Process for the Preparation of
L-Amino Acids Using Strains of the
Enterobacteriaceae Family**
Inventor(s): Rieping, Mechthild
Atty. Dkt.: 7601/80980

Dear Sir:

The following documents are being submitted for appropriate action by the U.S. Patent and Trademark Office:

1. Information Disclosure Statement;
2. PTO Form 1449, List of References Cited by Applicant;
3. References B1-B40 and C1-C74; and
4. Return postcard.

**Applicant does not believe that any fees are due for the filing of these documents.
However, the Director is hereby authorized to charge any fee deficiency with respect to this**

Commissioner for Patents
November 18, 2004
Page 2

filing and any other fee required in connection with the present case, or credit any overpayment to our Deposit Account No. 06-1135 under Order No. 7601/80980.

It is respectfully requested that the enclosed postcard be stamped with the date the enclosed documents are received by the PTO and that it be returned as soon as possible.

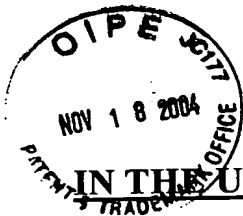
Very truly yours,

FITCH, EVEN, TABIN & FLANNERY

A handwritten signature in black ink that reads "Michael A. Sanzo". The signature is written in a cursive style with a large, stylized 'M' and 'S'.

Michael A. Sanzo
Reg. No. 36,912
Attorney for Applicant

MAS:ct
Enclosures



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:

Rieping, Mechthild

Appl. No.: 10/784,914

Filed: February 24, 2004

For: **Process for the Preparation of
L-Amino Acids Using Strains of the
Enterobacteriaceae Family**

Art Unit: to be assigned

Examiner: to be assigned

Atty. Dkt.: 7601/80980

Information Disclosure Statement

Commissioner of Patents
U.S. Patent and Trademark Office
220 20th Street South
Customer Window, **MS Amendment**
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202

Sir:

Submitted herewith is a listing of documents known to Applicant and/or his attorney in compliance with the requirements of 37 C.F.R. § 1.56. Copies of the listed documents, with the exception of the United States patent(s), are also enclosed.

Applicant also wishes to make the Examiner aware of co-pending applications 10/733,776, filed December 12, 2003; 10/784,902, filed February 24, 2004; 10/794,417, filed March 8, 2004; 10/812,315, filed March 30, 2004; and 10/817,431, filed April 5, 2004.

In accordance with 37 C.F.R. § 1.98(a)(3), Applicant's undersigned attorney submits the following concise explanation of the relevance of the non-English language document cited on the accompanying form:

Reference B1, PCT published application WO 99/18228, describes a method for increasing the microbial production of specific amino acids by increasing the activity or expression of pyruvate carboxylase. An English language abstract corresponding to this

document is enclosed herewith and is cited on the accompanying list of references as document C71.

Reference B3, PCT published application WO 01/05939 A1, describes a process for the production of L-amino acids, *e.g.*, L-lysine and L-glutamic acid, by culturing a microorganism having variation or deletion of sigma factor which acts specifically on the stationary phase. An English language abstract corresponding to this document is enclosed herewith and is cited on the accompanying list of references as document C72.

Reference B39, German patent DE 101 32 946 A1, describes a process for the fermentative production of L-amino acids by culturing Enterobacteriaceae in which the activity of at least one specific gene is increased. The process is useful in producing threonine and other amino acids for use in animal nutrition, medicine and the food industry. An English language abstract corresponding to this document is enclosed herewith and is cited on the accompanying list of references as document C73.

Reference B40, German patent DE 101 35 053 A1, describes a process for preparing L-amino acids, *e.g.*, L-threonine, by fermenting an organism of the Enterobacteriaceae family in which at least the *malE* gene is enhanced, particularly overexpressed, and then isolating the desired amino acid. An English language abstract corresponding to this document is enclosed herewith and is cited on the accompanying list of references as document C74.

Applicant does not waive any rights to appropriate action to establish patentability over any of the listed documents should they be applied as references against the claims of the present application. This statement should not be construed as a representation that more material information does not exist or that an exhaustive search of the relevant art has been made.

Consideration of the cited documents and making the same of record in the prosecution of the above-captioned application are respectfully requested.

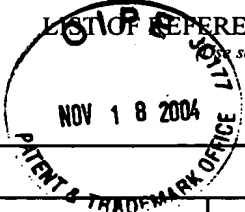
Applicant does not believe any fees are due for the submission of this Information Disclosure Statement other than those which have been provided. However, the Director is hereby authorized to charge any fee deficiency to our Deposit Account No. 06-1135 under Order No. 7601/80980.

Respectfully submitted,

FITCH, EVEN, TABIN & FLANNERY

By Michael A. Sanzo
Michael A. Sanzo
Reg. No. 36,912
Attorney for Applicant

Date November 17, 2004
1801 K Street, N.W., Suite 401L
Washington, DC 20006-1201
Telephone: (202) 419-7000

 <p>LIST OF REFERENCES CITED BY APPLICANT (on several sheets if necessary)</p>				Atty. Docket No.: 7601/80980		Appl. No.: 10/784,914	
				Applicant(s) Rieping, Mechthild			
				Filing Date: February 24, 2004		Group: to be assigned	
U.S. PATENT DOCUMENTS							
Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	A 1	4,278,765	Jul. 14, 1981	Debabov, <i>et al.</i>	435	172	Jun. 28, 1979
	A 2						
	A 3						
	A 4						
	A 5						
	A 6						
	A 7						
	A 8						
	A 9						
	A 10						
	A 11						
	A 12						
	A 13						
	A 14						
	A 15						
	A 16						
	A 17						
	A 18						
	A 19						
	A 20						
	A 21						
	A 22						
	A 23						
	A 24						
	A 25						
	A 26						
	A 27						
Examiner				Date Considered			

LIST OF REFERENCES CITED BY APPLICANT <i>(Use several sheets if necessary)</i>				Atty. Docket No.: 7601/80980		Appl. No.: 10/784,914		
				Applicant(s) Rieping, Mechthild				
				Filing Date: February 24, 2004		Group: to be assigned		
FOREIGN PATENT DOCUMENTS								
Examiner Initial		Document Number	Date	Country	Class	Subclass	Abst./Trans.	
							Yes	No
	B 1	WO 99/18228	Apr. 15, 1999	WIPO	C12P	13/00	X	
	B 2	WO 99/53035	Oct. 21, 1999	WIPO	C12N	9/00		
	B 3	WO 01/05939 A1	Jan. 25, 2001	WIPO	C12N	1/21	X	
	B 4	WO 01/92545 A1	Dec. 6, 2001	WIPO	C12N	15/70		
	B 5	WO 02/06459 A1	Jan. 24, 2002	WIPO	C12N	9/02		
	B 6	WO 02/29080 A2	Apr. 11, 2002	WIPO	C12P	13/04		
	B 7	WO 02/36797 A2	May 10, 2002	WIPO	C12P	13/00		
	B 8	WO 02/064808 A1	Aug. 22, 2002	WIPO	C12P	13/08		
	B 9	WO 02/081698 A2	Oct. 17, 2002	WIPO	C12N	15/31		
	B 10	WO 02/081721 A2	Oct. 17, 2002	WIPO	C12P	13/00		
40	B 11	WO 02/081722 A2	Oct. 17, 2002	WIPO	C12P	13/08		
	B 12	WO 03/004598 A2	Jan. 16, 2003	WIPO	C12N			
	B 13	WO 03/004663 A2	Jan. 16, 2003	WIPO	C12P			
	B 14	WO 03/004664 A2	Jan. 16, 2003	WIPO	C12P			
	B 15	WO 03/004665 A2	Jan. 16, 2003	WIPO	C12P			
	B 16	WO 03/004669 A2	Jan. 16, 2003	WIPO	C12P	13/00		
	B 17	WO 03/004670 A2	Jan. 16, 2003	WIPO	C12P	13/00		
	B 18	WO 03/004671 A2	Jan. 16, 2003	WIPO	C12P	13/00		
	B 19	WO 03/004674 A2	Jan. 16, 2003	WIPO	C12P	13/04		
	B 20	WO 03/006666 A2	Jan. 23, 2003	WIPO	C12P	13/00		
	B 21	WO 03/008603 A2	Jan. 30, 2003	WIPO	C12P	13/00		
	B 22	WO 03/008604 A2	Jan. 30, 2003	WIPO	C12P	13/00		
	B 23	WO 03/008605 A2	Jan. 30, 2003	WIPO	C12P	13/00		
	B 24	WO 03/008606 A2	Jan. 30, 2003	WIPO	C12P	13/00		
	B 25	WO 03/008607 A2	Jan. 30, 2003	WIPO	C12P	13/00		
	B 26	WO 03/008608 A2	Jan. 30, 2003	WIPO	C12P	13/00		
	B 27	WO 03/008609 A2	Jan. 30, 2003	WIPO	C12P	13/00		
Examiner				Date Considered				

LIST OF REFERENCES CITED BY APPLICANT <i>(Use several sheets if necessary)</i>				Atty. Docket No.: 7601/80980		Appl. No.: 10/784,914		
				Applicant(s) Rieping, Mechthild				
				Filing Date: February 24, 2004		Group: to be assigned		
FOREIGN PATENT DOCUMENTS								
Examiner Initial		Document Number	Date	Country	Class	Subclass	Abst./Trans.	
							Yes	No
	B 28	WO 03/008610 A2	Jan. 30, 2003	WIPO	C12P	13/00		
	B 29	WO 03/008612 A2	Jan. 30, 2003	WIPO	C12P	13/00		
	B 30	WO 03/008613 A2	Jan. 30, 2003	WIPO	C12P	13/00		
	B 31	WO 03/008614 A2	Jan. 30, 2003	WIPO	C12P	13/00		
	B 32	WO 03/008615 A2	Jan. 30, 2003	WIPO	C12P	13/00		
	B 33	WO 03/038106 A2	May 8, 2003	WIPO	C12P	13/14		
	B 34	WO 03/076635 A1	Sep. 18, 2003	WIPO	C12P	13/04		
	B 35	EP 0 271 838 A2	Jun. 22, 1988	EPO	C12N	15/00		
	B 36	EP 0 994 190 A2	Apr. 19, 2000	EPO	C12N	15/31		
	B 37	EP 1 013 765 A1	Jun. 28, 2000	EPO	C12N	15/31		
	B 38	EP 1 149 911 A2	Oct. 31, 2001	EPO	C12N	15/52		
	B 39	DE 101 32 946 A1	Jul. 6, 2001	Germany	C12N	15/31	X	
	B 40	DE 101 35 053 A1	Jul. 18, 2001	Germany	C12P	13/04	X	
	B 41							
	B 42							
	B 43							
	B 44							
	B 45							
	B 46							
	B 47							
	B 48							
	B 49							
	B 50							
	B 51							
	B 52							
	B 53							
	B 54							
Examiner				Date Considered				

LIST OF REFERENCES CITED BY APPLICANT <i>(Use several sheets if necessary)</i>		Atty. Docket No.: 7601/80980	Appl. No.: 10/784,914
		Applicant(s) Rieping, Mechthild	
		Filing Date: February 24, 2004	Group: to be assigned

Examiner Initial	OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)	
C 1		ANDREWS, <i>et al.</i> , "Cloning, Sequencing, and Mapping of the Bacterioferritin Gene (<i>bfr</i>) of <i>Escherichia coli</i> K-12," <i>J. Bacteriol.</i> 171:3940-3947 (1989).
C 2		BLANKENHORN, <i>et al.</i> , "Acid- and Base-Induced Proteins during Aerobic and Anaerobic Growth of <i>Escherichia coli</i> Revealed by Two-Dimensional Gel Electrophoresis," <i>J. Bacteriol.</i> 181:2209-2216 (1999).
C 3		BLATTNER, <i>et al.</i> , "The Complete Genome Sequence of <i>Escherichia coli</i> K-12," <i>Science</i> 277:1453-1462 (1997).
C 4		BOOS, <i>et al.</i> , "Maltose/Maltodextrin System of <i>Escherichia coli</i> : Transport, Metabolism, and Regulation," <i>Microbiol. Mol. Biol. Rev.</i> 62:204-229 (1998).
C 5		BRUNE, <i>et al.</i> , "Cloning and Sequencing of the Adenylate Kinase Gene (<i>adk</i>) of <i>Escherichia coli</i> ," <i>Nucleic Acids Res.</i> 13:7139-7151 (1985).
C 6		CARRIER, <i>et al.</i> , "Library of Synthetic 5' Secondary Structures to Manipulate mRNA Stability in <i>Escherichia coli</i> ," <i>Biotechnol. Prog.</i> 15:58-64 (1999).
C 7		CLARKE, <i>et al.</i> , "Nucleotide Sequence of the <i>pntA</i> and <i>pntB</i> Genes Encoding the Pyridine Nucleotide Transhydrogenase of <i>Escherichia coli</i> ," <i>Eur. J. Biochem.</i> 158:647-653 (1986).
C 8		COLE, <i>et al.</i> , "The Nucleotide Sequence of the <i>malT</i> Gene Encoding the Positive Regulator of <i>Escherichia coli</i> Maltose Regulon," <i>Gene</i> 42:201-208 (1986).
C 9		DANOT, "A Complex Signaling Module Governs the Activity of MalT, the Prototype of an Emerging Transactivator Family," <i>Proc. Natl. Acad. Sci. USA</i> 98:435-440 (2001).
C 10		DiRUSSO, "Nucleotide Sequence of the <i>fadR</i> Gene, a Multifunctional Regulator of Fatty Acid Metabolism in <i>Escherichia coli</i> ," <i>Nucleic Acids Res.</i> 16:7995-8009 (1988).
C 11		ENOS-BERLAGE, <i>et al.</i> , "Complex Metabolic Phenotypes Caused by a Mutation in <i>yigF</i> , Encoding a Member of the Highly Conserved YER057c/YjgF Family of Proteins," <i>J. Bacteriol.</i> 180:6519-6528 (1998).
C 12		FOUNTOULAKIS, <i>et al.</i> , "Enrichment of Low Abundance Proteins of <i>Escherichia coli</i> by Hydroxyapatite Chromatography," <i>Electrophoresis</i> 20:2181-2195 (1999).
C 13		FRANCH, <i>et al.</i> , "U-Turns and Regulatory RNAs," <i>Curr. Opin. Microbiol.</i> 3:159-164 (2000).
C 14		GARRIDO-PERTIERRA, "Isolation and Properties of <i>Salmonella typhimurium</i> Mutants Defective in Enolase," <i>Revista Española de Fisiología</i> 36:33-40 (1980).
C 15		GULICK, <i>et al.</i> , "Evolution of Enzymatic Activities in the Enolase Superfamily: Crystal Structures of the L-Ala-D/L-Glu Epimerases from <i>Escherichia coli</i> and <i>Bacillus subtilis</i> ," <i>Biochemistry</i> 40:15716-15724 (2001).
C 16		HEIM, <i>et al.</i> , "Cloning an <i>Escherichia coli</i> Gene Encoding a Protein Remarkably Similar to Mammalian Aldehyde Dehydrogenases," <i>Gene</i> 99:15-23 (1991).
C 17		HOFNUNG, "Divergent Operons and the Genetic Structure of the Maltose B Region in <i>Escherichia coli</i> K12," <i>Genetics</i> 76:169-184 (1974).
C 18		HOGG, <i>et al.</i> , "Nucleotide Sequence and Analysis of the <i>mgl</i> Operon of <i>Escherichia coli</i> K12," <i>Mol. Gen. Genet.</i> 229:453-459 (1991).
C 19		JENSEN, <i>et al.</i> , "Artificial Promoters for Metabolic Optimization," <i>Biotechnol. Bioeng.</i> 58:191-195 (1998).
Examiner		Date Considered

LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary)		Atty. Docket No.: 7601/80980	Appl. No.: 10/784,914
		Applicant(s) Rieping, Mechthild	
		Filing Date: February 24, 2004	Group: to be assigned
Examiner Initial			
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)			
	C 20	KAGA, <i>et al.</i> , "Rnase G-Dependent Degradation of the <i>eno</i> mRNA Encoding a Glycolysis Enzyme Enolase in <i>Escherichia coli</i> ," <i>Biosci. Biotechnol. Biochem.</i> 66:2216-2220 (2002).	
	C 21	KIRKPATRICK, <i>et al.</i> , "Acetate and Formate Stress: Opposite Responses in the Proteome of <i>Escherichia coli</i> ," <i>J. Bacteriol.</i> 183:6466-6477 (2001).	
	C 22	KLEIN, <i>et al.</i> , "Cloning, Nucleotide Sequence, and Functional Expression of the <i>Escherichia coli</i> Enolase (<i>eno</i>) Gene in a Temperature-Sensitive <i>eno</i> Mutant Strain," <i>J. Seq. Mapping</i> 6:351-355 (1996).	
	C 23	KNAPPE, <i>et al.</i> , "A Radical-Chemical Route to Acetyl-CoA: The Anaerobically Induced Pyruvate Formate-Lyase System of <i>Escherichia coli</i> ," <i>FEMS Microbiol. Rev.</i> 75:383-398 (1990).	
	C 24	KOMATSUBARA, <i>et al.</i> , "Transductional Construction of a Threonine-Producing Strain of <i>Serratia marcescens</i> ," <i>Appl. Environ. Microbiol.</i> 38:1045-1051 (1979).	
	C 25	LANDGRAF, <i>et al.</i> , "The Role of H-NS in One Carbon Metabolism," <i>Biochimie</i> 76:1063-1070 (1994).	
	C 26	LEE, <i>et al.</i> , "Global Analysis of Transcriptomes and Proteomes of a Parent Strain and an L-Threonine-Overproducing Mutant Strain," <i>J. Bacteriol.</i> 185:5442-5451 (2003).	
	C 27	MACPHERSON, <i>et al.</i> , "Identification of the GalP Galactose Transport Protein of <i>Escherichia coli</i> ," <i>J. Biol. Chem.</i> 258:4390-4396 (1983).	
	C 28	MARTIN, <i>et al.</i> , "Forskolin Specifically Inhibits the Bacterial Galactose-H ⁺ Transport Protein, GalP," <i>J. Biol. Chem.</i> 269:24870-24877 (1994).	
	C 29	MASUDA, <i>et al.</i> , "Improvement of Nitrogen Supply for L-Threonine Production by a Recombinant Strain of <i>Serratia marcescens</i> ," <i>Appl. Biochem. Biotechnol.</i> 37:255-265 (1992).	
	C 30	McPHERSON, <i>et al.</i> , "Complete Nucleotide Sequence of the <i>Escherichia coli</i> <i>gdhA</i> Gene," <i>Nucleic Acids Res.</i> 11:5257-5267 (1983).	
	C 31	MEYER, <i>et al.</i> , "Molecular Characterization of Glucokinase from <i>Escherichia coli</i> K-12," <i>J. Bacteriol.</i> 179:1298-1306 (1997).	
	C 32	MISSIAKAS, <i>et al.</i> , "Modulation of the <i>Escherichia coli</i> σ^E (RpoE) Heat-Shock Transcription-Factor Activity by the RseA, RseB and RseC Proteins," <i>Mol. Microbiol.</i> 24:355-371 (1997).	
	C 33	NAGELKERKE, <i>et al.</i> , "2-Deoxygalactose, a Specific Substrate of the <i>Salmonella typhimurium</i> Galactose Permease: Its Use for the Isolation of <i>galP</i> Mutants," <i>J. Bacteriol.</i> 133:607-613 (1978).	
	C 34	NIERSBACH, <i>et al.</i> , "Cloning and Nucleotide Sequence of the <i>Escherichia coli</i> K-12 <i>ppsA</i> Gene, Encoding PEP Synthase," <i>Mol. Gen. Genet.</i> 231:332-336 (1992).	
	C 35	PARSONS, <i>et al.</i> , "Solution Structure and Functional Ligand Screening of HI0719, a Highly Conserved Protein from Bacteria to Humans in the YjgF/YER057c/UK114 Family," <i>Biochemistry</i> 42:80-89 (2003).	
	C 36	POSTMA, "Galactose Transport in <i>Salmonella typhimurium</i> ," <i>J. Bacteriol.</i> 129:630-639 (1977).	
	C 37	QIU, <i>et al.</i> , "The <i>Escherichia coli</i> <i>polB</i> Locus Is Identical to <i>dinA</i> , the Structural Gene for DNA Polymerase II," <i>J. Biol. Chem.</i> 272:8611-8617 (1997).	
	C 38	RAIBAUD, <i>et al.</i> , "Maltotriose Is the Inducer of the Maltose Regulon of <i>Escherichia coli</i> ," <i>J. Bacteriol.</i> 169:3059-3061 (1987).	
Examiner		Date Considered	

LIST OF REFERENCES CITED BY APPLICANT <i>(Use several sheets if necessary)</i>		Atty. Docket No.: 7601/80980	Appl. No.: 10/784,914
		Applicant(s) Rieping, Mechthild	
		Filing Date: February 24, 2004	Group: to be assigned

Examiner Initial	OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)	
C 39		RAIBAUD, <i>et al.</i> , "Essential and Nonessential Sequences in <i>malPp</i> , a Positively Controlled Promoter in <i>Escherichia coli</i> ," <i>J. Bacteriol.</i> 161:1201-1208 (1985).
C 40		RAVNIKAR, <i>et al.</i> , "Structural and Functional Analysis of a Cloned Segment of <i>Escherichia coli</i> DNA That Specifies Proteins of a C ₄ Pathway of Serine Biosynthesis," <i>J. Bacteriol.</i> 169:4716-4721 (1987).
C 41		REYES, <i>et al.</i> , "Overproduction of MalK Protein Prevents Expression of the <i>Escherichia coli</i> <i>mal</i> Regulon," <i>J. Bacteriol.</i> 170:4598-4602 (1988).
C 42		RICHET, <i>et al.</i> , "MalT, the Regulatory Protein of the <i>Escherichia coli</i> Maltose System, Is an ATP-Dependent Transcriptional Activator," <i>EMBO J.</i> 8:981-987 (1989).
C 43		RÖDEL, <i>et al.</i> , "Primary Structures of <i>Escherichia coli</i> Pyruvate Formate-Lyase and Pyruvate-Formate-Lyase-Activating Enzyme Deduced from the DNA Nucleotide Sequences," <i>Eur. J. Biochem.</i> 177:153-158 (1988).
C 44		ROMEO, <i>et al.</i> , "Identification and Molecular Characterization of <i>csrA</i> , a Pleiotropic Gene from <i>Escherichia coli</i> That Affects Glycogen Biosynthesis, Gluconeogenesis, Cell Size, and Surface Properties," <i>J. Bacteriol.</i> 175:4744-4755 (1993).
C 45		SABE, <i>et al.</i> , "Molecular Cloning of the Phosphoenolpyruvate Carboxylase Gene, <i>ppc</i> , of <i>Escherichia coli</i> ," <i>Gene</i> 31:279-283 (1984).
C 46		SCHLEGEL, <i>et al.</i> , "Network Regulation of the <i>Escherichia coli</i> Maltose System," <i>J. Mol. Microbiol. Biotechnol.</i> 4:301-307 (2002).
C 47		SCHMITZ, <i>et al.</i> , "Reduced Transaminase B (IlvE) Activity Caused by the Lack of <i>yjgF</i> Is Dependent on the Status of Threonine Deaminase (IlvA) in <i>Salmonella enterica</i> Serovar Typhimurium," <i>J. Bacteriol.</i> 186:803-810 (2004).
C 48		SCHREIBER, <i>et al.</i> , "A New Mechanism for the Control of Prokaryotic Transcriptional Regulator: Antagonistic Binding of Positive and Negative Effectors," <i>Mol. Microbiol.</i> 35:765-776 (2000).
C 49		SPRING, <i>et al.</i> , "The Purification and Characterization of <i>Escherichia coli</i> Enolase," <i>J. Biol. Chem.</i> 246:6797-6802 (1971).
C 50		STEPHENS, <i>et al.</i> , "The Pyruvate Dehydrogenase Complex of <i>Escherichia coli</i> K12 - Nucleotide Sequence Encoding the Pyruvate Dehydrogenase Component," <i>Eur. J. Biochem.</i> 133:155-162 (1983).
C 51		STEPHENS, <i>et al.</i> , "The Pyruvate Dehydrogenase Complex of <i>Escherichia coli</i> K12 - Nucleotide Sequence Encoding the Dihydrolipoamide Acetyltransferase Component," <i>Eur. J. Biochem.</i> 133:481-489 (1983).
C 52		STEPHENS, <i>et al.</i> , "Nucleotide Sequence of the Lipoamide Dehydrogenase Gene of <i>Escherichia coli</i> K12," <i>Eur. J. Biochem.</i> 135:519-527 (1983).
C 53		SUGITA, <i>et al.</i> , "Cloning and Characterization of the Mutated Threonine Operon (<i>thrA</i> , <i>5A</i> , <i>5BC</i>) of <i>Serratia marcescens</i> ," <i>Gene</i> 57:151-158 (1987).
C 54		SUNNARBORG, <i>et al.</i> , "Regulation of the Glyoxylate Bypass Operon: Cloning and Characterization of <i>iclR</i> ," <i>J. Bacteriol.</i> 172:2642-2649 (1990).
C 55		SUZUKI, <i>et al.</i> , "Mapping, Cloning, and DNA Sequencing of <i>pepB</i> Which Encodes Peptidase B of <i>Escherichia coli</i> K-12," <i>J. Ferment. Bioeng.</i> 82:392-397 (1996).
C 56		THORSNESS, <i>et al.</i> , "Inactivation of Isocitrate Dehydrogenase by Phosphorylation Is Mediated by the Negative Charge of the Phosphate," <i>J. Biol. Chem.</i> 262:10422-10425 (1987).
C 57		VALLE, <i>et al.</i> , "Nucleotide Sequence of the Promoter and Amino-Terminal Coding Region of the Glutamate Dehydrogenase Structural Gene of <i>Escherichia coli</i> ," <i>Gene</i> 23:199-209 (1983).
Examiner		Date Considered

LIST OF REFERENCES CITED BY APPLICANT <i>(Use several sheets if necessary)</i>		Atty. Docket No.: 7601/80980	Appl. No.: 10/784,914
		Applicant(s) Rieping, Mechthild	
		Filing Date: February 24, 2004	Group: to be assigned
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)			
Examiner Initial			
	C 58	VENTER, <i>et al.</i> , "Molecular Dissection of Membrane-Transport Proteins: Mass Spectrometry and Sequence Determination of the Galactose-H ⁺ Symport Protein, GalP, of <i>Escherichia coli</i> and Quantitative Assay of the Incorporation of [ring-2 ¹³ C]histidine and ¹⁵ NH ₃ ," <i>Biochem J.</i> 363:243-252 (2002).	
	C 59	VIDAL-INGIGLIARDI, <i>et al.</i> , "A Small C-Terminal Region of the <i>Escherichia coli</i> MalT Protein Contains the DNA-Binding Domain," <i>J. Biol. Chem.</i> 268:24527-24530 (1993).	
	C 60	VOGEL, <i>et al.</i> , "Cloning and Sequenc of the <i>mdh</i> Structural Gene of <i>Escherichia coli</i> Coding for Malate Dehydrogenase," <i>Arch. Microbiol.</i> 149:36-42 (1987).	
	C 61	VOLZ, "A Test Case for Structure-Based Functional Assignment: The 1.2 Å Crystal Structure of the <i>yjgF</i> Gene Product from <i>Escherichia coli</i> ," <i>Protein Science</i> 8:2428-2437 (1999).	
	C 62	WAGNER, <i>et al.</i> , "The Free Radical in Pyruvate Formate-Lyase Is Located on Glycine-734," <i>Proc. Natl. Acad. Sci. USA</i> 89:996-1000 (1992).	
	C 63	WALMSLEY, <i>et al.</i> , "8-Anilino-1-Naphthalenesulfonate Is a Fluorescent Probe of Conformational Changes in the D-Galactose-H ⁺ Simport Protein of <i>Escherichia coli</i> ," <i>J. Biol. Chem.</i> 269:17009-17019 (1994).	
	C 64	WALTON, <i>et al.</i> , "Nucleotide Sequence of the <i>Escherichia coli</i> Uridine Phosphorylase (<i>udp</i>) Gene," <i>Nucleic Acids Res.</i> 17:6741 (1989).	
	C 65	WASINGER, <i>et al.</i> , "Small Genes/Gene-Products in <i>Escherichia coli</i> K-12," <i>FEMS Microbiol. Lett.</i> 169:375-382 (1998).	
	C 66	WENTE, <i>et al.</i> , "Different Amino Acid Substitutions at the Same Position in the Nucleotide-Binding Site of Aspartate Transcarbamoylase Have Diverse Effects on the Allosteric Properties of the Enzyme," <i>J. Biol. Chem.</i> 266:20833-20839 (1991).	
	C 67	WONG, <i>et al.</i> , "Transcription of <i>pfl</i> Is Regulated by Anaerobiosis, Catabolite Repression, Pyruvate, and <i>oxrA</i> : <i>pfl</i> ::MU dA Operon Fusions of <i>Salmonella typhimurium</i> ," <i>J. Bacteriol.</i> 171:4900-4905 (1989).	
	C 68	WYBORN, <i>et al.</i> , "Expression of the <i>Escherichia coli</i> <i>yfiD</i> Gene Responds to Intracellular pH and Reduces the Accumulation of Acidic Metabolic End Products," <i>Microbiology</i> 148:1015-1026 (2002).	
	C 69	YANO, <i>et al.</i> , "Directed Evolution of an Aspartate Aminotransferase with New Substrate Specificities," <i>Proc. Natl. Acad. Sci. USA</i> 95:5511-5515 (1998).	
	C 70	YOSHIDA, <i>et al.</i> , "Physical Map Location of a Set of <i>Escherichia coli</i> Genes (<i>hde</i>) Whose Expression Is Affected by the Nucleoid Protein H-NS," <i>J. Bacteriol.</i> 175:7747-7748 (1993).	
	C 71	Abstract of Reference B1, WO 99/18228.	
	C 72	Abstract of Reference B3, WO 01/05939.	
	C 73	Abstract of Reference B39, DE 101 32 946.	
	C 74	Abstract of Reference B40, DE 101 35 053.	
	C 75		
	C 76		
Examiner		Date Considered	